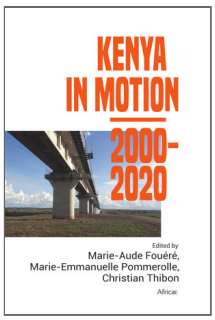

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Kenya in Motion 2000-2020

Africae

Chapter 2

The Large Gaps in Development in Kenya

Bernard Calas

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Chapter 2

The Large Gaps in Development in Kenya

Bernard Calas

Translated by Geoffrey D. Hilton, Elliot Brennan & Catherine S. Davis

The purpose of this chapter is not to re-examine each point previously discussed in 1998 in my contribution to *Le Kenya Contemporain* (Grignon & Prunier 1998). First, some of the characteristics of the country have not fundamentally changed: there is no need to revisit them. This chapter rather seeks to present the major geographic changes that have taken place in Kenya—which I call "the ageing" of places—with reference to the double ageing that the novelist Georges Pérec highlighted in his *Des Lieux*: that of my writing, and that of my own subjectivity. This contribution will thus be marked by these three forms of ageing but will focus solely on the dynamics of Kenya's different areas. It will be less about "accounting for extreme diversity"—as was the case in 1998—but more about shedding light on the major geographic changes of the last 25 years by distinguishing two types of areas: the attractive and integrated areas, and the unattractive and marginalised ones.

Before all else, it is important to present two important factors that influence the majority of challenges in Kenya and Africa in general.

First of all, in 28 years, the Kenyan population has more than doubled, growing from 23 million inhabitants to nearly 53 million (Pison 2019)! These numbers should be considered carefully. Imagine if the population of France[1] grew from its current 64 million people to 120 million in 2040… and, during the current migration "crisis," imagine the debates, tensions, and changes begotten by such growth. This change is the most important and must be kept in mind. Kenya is obviously not the only country to have experienced this kind of boom. Indeed, the country's growth was not the most significant in either relative or absolute terms. Neither unique nor extreme, the growth of the Kenyan population demonstrates the vitality of the African demographic transition, and this without falling into unseemly Malthusianism. Regardless from what angle we consider the country or the continent beyond, we must embrace this amasing vital dynamic that makes

1. This text was originally published in French for a French-speaking audience: this reference to France should not be seen as a sign of anachronism or ethnocentrism.

half the population younger than 18 years old! It places the politics of men and of numbers at the centre of debates and this perspective influences the analysis of inequality and development in Kenya. Furthermore, instead of opening with a discussion on the physical base, one should better introduce the people and their most important characteristics.

Next, it must be emphasised that Kenya is still, and will remain for decades, affected by development problems more than anything else. Of course, it has developed to the point of being struck off the list of Least Developed Countries (LDC). An average annual economic growth rate over 30 years of 5-6% per year—despite declines and slowdowns due to political, climate, and cyclical risks—made it possible for the country's GDP (67 billion USD, 68th globally) and GDP per capita (1,380 USD per capita) to rise. Nevertheless, it is still not an emerging market in the eyes of commercial banks and rating agencies. Although Kenya is no longer on the LDC list, analysts envisage it as one of the "African lions" (Mac Kinsey 2013). Its elites expect the country to emerge around 2030 (Vision 2030) and flaunt their aspiration of joining the other "tigers" and Asian "dragons." Yet the country remains fundamentally crippled by development problems. The slightest drought can lead to shortages and famines, with repercussions on the economy and society as a whole. A minor adverse El Niño-related weather event can paralyse the economy. Even if it is above the African average, Kenya's HDI (0.548 that ranked 145th in the world in 2014; 0.43 in 1990 ranked 156th) remains relatively low. Its development is extremely unequally distributed, both socially and geographically: 45% of the population still live on less than 2 USD per day and its Gini index (0.51), far from decreasing, is growing and makes it one of the most unequal societies in Africa. In total, the average Kenyan's monthly income of USD 115 places it 140th in the world.

These two introductory ideas underline the importance of the changes in the way in which the country has faced three major challenges of development: demographic transition, economic diversification, and structural transformation to end its dependence on aid, but also environmental sustainability as growing needs push productivity beyond environmental limits in a context of intensified globalisation. The challenges have brought about changes—spectacular for some, subdued for others—that must now be discussed.

1. First Challenge: Demographic Transition

In the 2009 census (before the most recent one of August 2019), the Kenyan population was growing at a rate of 2.8% per year, doubling every 25 years. Since then, according to international organisations, growth has decreased to 2.3% per year (Pison 2019). The Kenyan population is therefore in the midst of a demographic transition. Growth is decelerating (3.3% in 1990),

under the influence of the decreased birth rate, itself correlated with the decrease in the Total Fertility Rate (6.6 in 1990, 4.7 in 2009, 3.4 in 2019). Kenyans are having fewer children than their Ugandan and Tanzanian neighbours or than their parents. According to the last *Demographic and Health Survey* (2014), after stagnating for a decade and even rising back to 4.6-4.9 children per woman at the end of the 1990s, the national fertility rate fell below 4 children per woman. This was the result of an increase in the uptake of contraceptive practices. At present, 60% of women older than 15 use contraceptive methods, compared with a third in 2000. This increased uptake is partially due to the introduction of free primary schooling in 2003. If the uptake of contraceptive practices continues at this rate, it may allow the country to benefit from a "population dividend." This occurred in South-East Asia fifty years ago where it lowered the dependency ratio before it raised again due to the ageing population. For Kenya, this may quickly increase GDP per capita—the central measure of development.

The growing use of contraception is combined with the slight rise in the age at marriage (20 years old), the rise of the age at first birth, and the decline of the proportion of teenage pregnancies (from 12.7% in 1990 to 9% today), all linked to tangible women's empowerment. Infant mortality has also decreased (from 98‰ in 1990 to 79‰ in 2009 to 35‰ in 2019; see Pison 2019), improving children's chances of survival. Classically, improvement of girls' education results in a decline in women's desire to have children, and an increase of inter-birth intervals.

However, the geography of this demographic transition and the decrease in birth rates and fertility show a clear contrast between the Central Highlands and the rest of the country. In the counties of Meru and Kirinyaga, more than 70% of women have access to contraception while, in the lowlands of the north-north-east (counties of Wajir, Mandera, and Garissa) less than 7% of women use it. The Western Highlands, the Great Rift Valley, and the Coast are in the middle.

Life expectancy, after having fallen to 51 years old in 2000 due to the effects of the AIDS pandemic, has risen back to 67 years old, which marks entry in the post-AIDS period. However, some 1.6 million people still have HIV in Kenya. Large geographic inequalities in the struggle against death have appeared: in the Lake Victoria region, particularly in Luo lands, HIV prevalence remains high.

Has Growth Changed the Spatial Distribution of the Kenyan Population?

In 2009, the average density of Kenya was 66 people per square kilometre. This is meaningless, given the large differential between, for instance, the rural density of Vihiga county with Asian-like levels of 973 people per

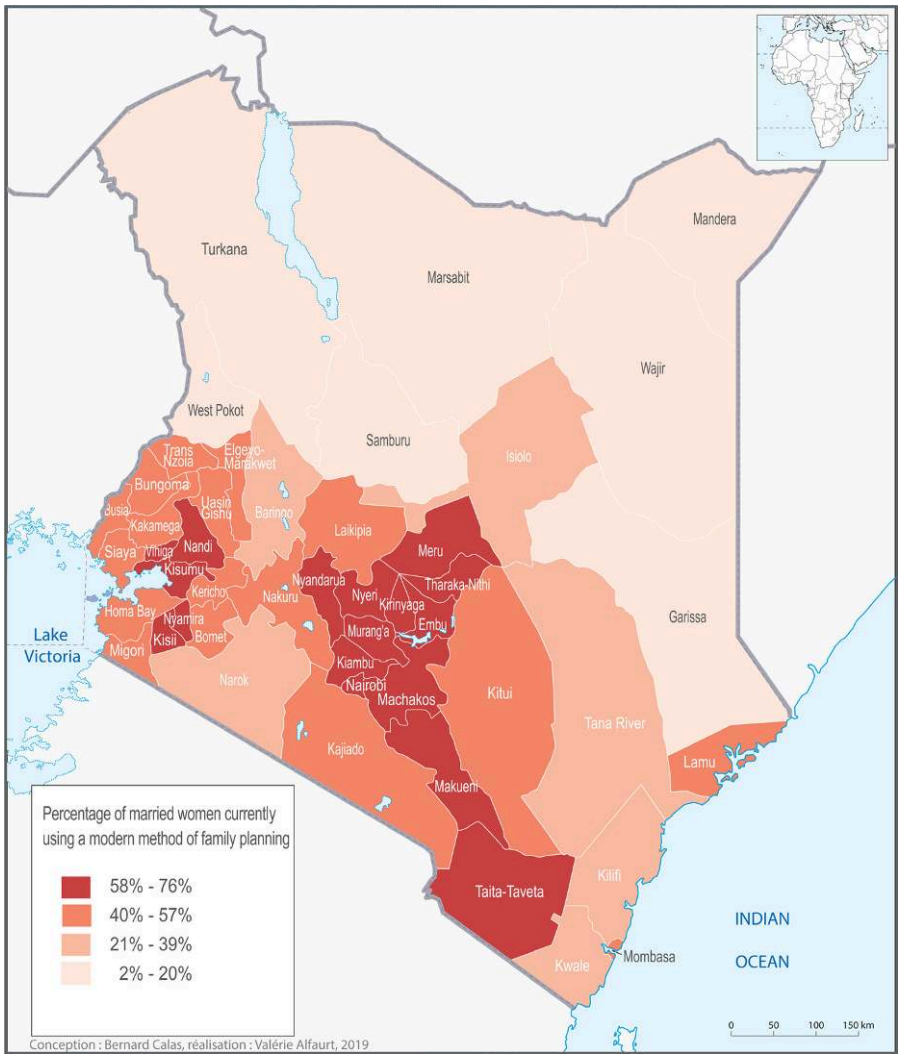

Figure 1. Usage of modern contraceptive methods
Bernard Calas, Valérie Alfaurt, 2019.

square kilometre in 2009, and the quasi-Saharan levels of Marsabit with 4 people per square kilometre. High densities are centred in the highlands, particularly in the west (Kisii 877; Nyamira 659; Bungoma 452; Kakamega 546; Trans-Nzoia 324) but also in the eastern slopes of the Central Highlands (Nyeri 204; Kirinyaga 352; Muranga 366; Meru 193; Embu 180; Machakos 175; even Makueni 109). These higher densities correspond with the Luhya, Kisii, Kikuyu, and Kamba lands. The foothills and fringes of these highlands (Baringo 50; West Pokot 56; Laikipia 46; Narok 47) and the coast are in the middle (Kwale 78; Kilifi 87). The lowest densities (often less

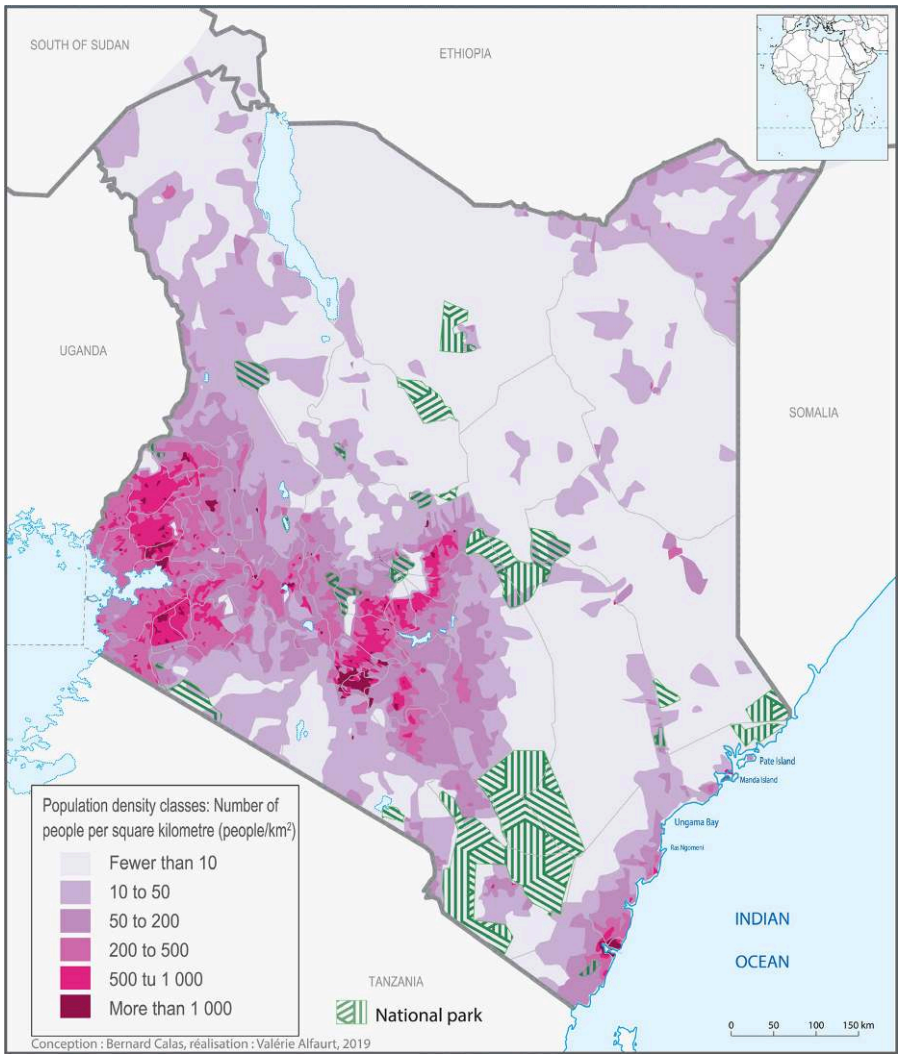

Figure 2. Map of population densities
Bernard Calas, Valérie Alfaurt, 2019.

than 10 people per square kilometre) are spread across the northeastern half of the country.

Fundamentally, the dynamics that were identified 25 years ago still hold: densification in already populated areas, pioneer fronts that are spontaneously loosening on the margins, migrations towards agrarian townsites from the old 'White Highlands', along with urbanisation through the creation of new towns, through the increasing size of existing towns, and the sprawl of suburbs and urban peripheries of the biggest cities. The Brownian motion is accentuated and polytopic ways of life have multiplied,

facilitated by mobile telephony (89% of Kenyans had a mobile telephone number in 2017) and the improvement of automobile accessibility in many areas of the country. However, use of mobile phones, the Internet, the *boda boda* and the *matatu* have not radically upset the density map. The crowded highlands are becoming increasingly crowded while the arid lowlands of the north and the north-east are still relatively empty, even though the density is increasing. Two-thirds of the Kenyan population used to live above 1,500 m. Although this has now fallen to 1,200 m, the famous butterfly-shaped highlands remain the home of the majority of the population, together with the coastal border.

This does not mean that Kenyans are not moving, however. In 2009, 20% of Kenyans did not live in their county of birth. At the county level, mobility numbers express the different level of attractiveness of the regions. Unsurprisingly, the less attractive areas are in the arid and sometimes unsafe parts of north-eastern Kenya (Mandera, Wajir), the north (Turkana, Marsabit) and the small farms areas in semi-arid parts of the east (Kitui, and to a small extent Makueni or Tharaka on the eastern piedmont of Mt Kenya). The only exceptions in this unattractive environment are the Dadaab camps populated by Somali refugees (Meyerfeld 2016; Chkam 2016, 79-97), county seats, and border checkpoints. In contrast, the attractiveness of the Lamu-Garsen region is tied to its large harbour and agricultural projects. Uasin Gishum, Elgoyo Marakwet, Trans-Nzoia, Nyandarua, and Laikipia are also attractive counties: farmers establish there, sometimes on the White Highlands or at the expense of forests and protected lands that were delisted at the start of the 2000s, and as a result of the creation of several displaced persons camps from the 2007–08 crisis. The net migration in the cities of Nairobi, Mombasa, Kisumu, Eldoret, and Nakuru but also in the central areas around the capital (suburban countries of Kiambu and Kajiado) underline how important cities have become to Kenyans. This urban attractiveness can be found on all scales: for example, more than half of the inhabitants of Isiolo, a town set in the arid foothills to the north of Mt Kenya (Samburu and Shaba region)—generally not a particularly attractive area—were born in another county. Likewise, the migration maps of the *Socio-Economic Atlas of Kenya* (Wiesmann, Kiteme & Mwango 2014, 38-39) show the attractiveness of Namanga, Oliotoktok, Kasigau, Maralal, Marsabit, or even Lodwar, and of a whole series of small and medium-sized towns (Calas 2007, 3-22).

Indeed, one of Kenya's decisive trends today is urbanisation—in the same as in the rest of Africa. It affects both men (and women) and places. The population is urbanising at a rate of 4% per year. Firstly, this is due to a daily increase in the number of people living in cities resulting from natural growth and moderate rural exodus. Secondly, urbanisation concerns areas

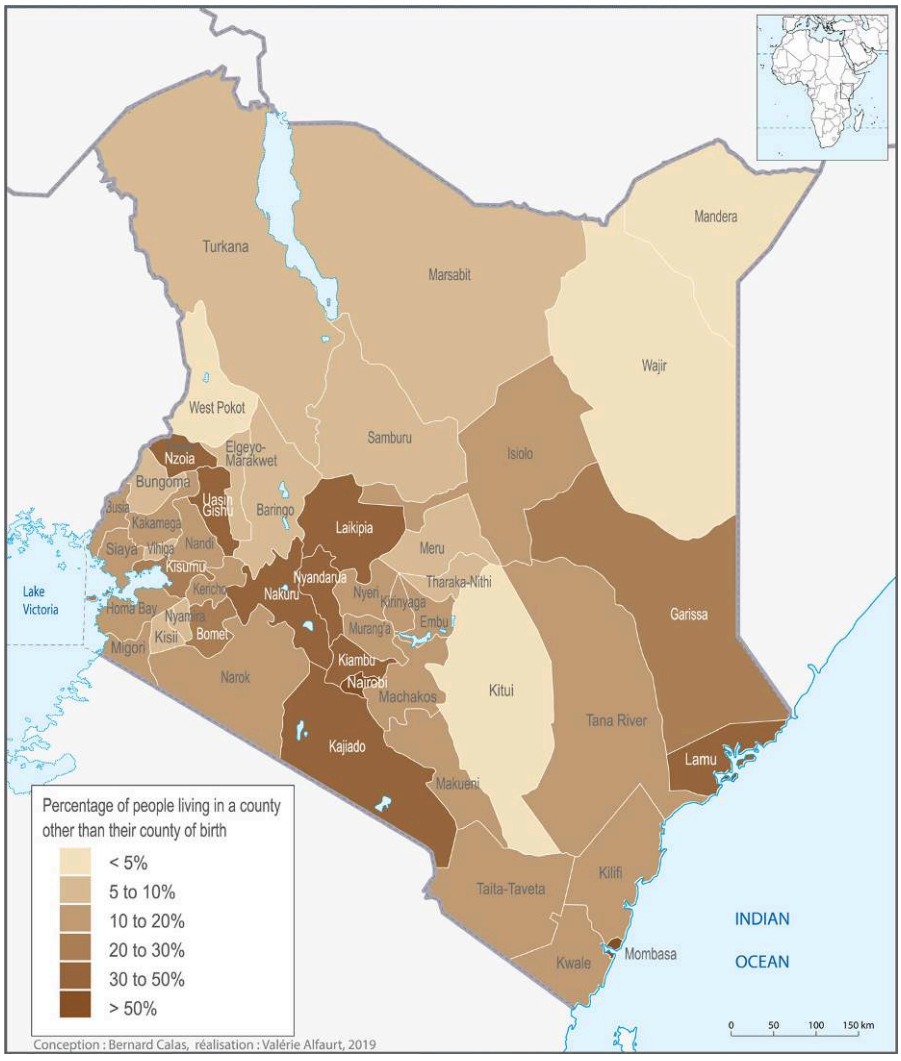

Figure 3. Map of attractive and unattractive counties
Bernard Calas, Valérie Alfaurt, 2019.

where the small towns become denser: a large range of activities are taking place in locations that previously were only cross-roads, weekly markets and police stations. The population is also urbanising because of increased mobility and because the ties thus created are "rurbanising" the countryside (Racaud, Nakileza, Bart & Charlery de la Masselière 2016)—that is, because the countryside is increasingly integrated with the urban world. As a result, the macrocephaly of the urban network is decreasing.

2. Second Challenge: Structural Diversification

This second challenge relates to the analysis of economic activity which, as it is linked to the issue of development, is about the reduction of dependence on primary materials and prices through economic diversification and by moving up industrial value chains, that is to say, through what is well known as "structural transformation."

Table 1. Contributions to GNP and employment by sector and by import/export/investment in GNP

	Agriculture		Manufacturing		Services				
	% GNP	% Man power (MP)	% GNP	% MP	% GNP	% MP	Export % GNP	Import % GNP	Investment
KENYA 1990	30	66	19	7	51	26	26	31	24
KENYA 2016	36	61	19	9	45	30	15	23	17

Sources: *World Development Indicators Database,* 3 January 2018.

The relative increase of the share of agriculture in GNP between 1990 and 2016 is surprising as it seems to contradict not only the theories of development that promote structural transformation at the expense of agriculture and profits for manufacturers or service providers, but also ideas that development should rely upon industrialisation, the expansion of the tertiary sector, and de-agrarianisation (Bryceson & Van Der Laan 1994).

Far from declining in the production of wealth, agriculture is, in fact, progressing even though the GDP is growing by 5% per year! The concurrent relative shrinkage of agriculture's contribution to employment confirms the improvement of agricultural productivity. However, it is important to remember that in absolute terms, the number of people working in agriculture has increased substantially even though farmlands have not extended in proportion, which implies an actual increase in yields. This joint growth of productivity and agricultural yields underlines the extent to which agricultural transformation is at the heart of the dynamic of growth and development in Kenya.

Some people in the countryside are becoming big farmers and even agrobusinessmen. This transformation takes the intensification route: better crop varieties (but not GMOs yet), more extensive and careful use of inputs, and shorter crop rotations along with more frequent use of small hydropower are all part of this dynamic. This is made possible through the integration of defined areas (*terroirs*) in a number of national, regional, and global value chains and to the production in Kenya of products with higher added values, notably through the procurement of certificates for selected products. The rise of cash-subsistence crops for urban areas, "the

supermarket's revolution," the emergence of East African agri-food trade (mainly legumes and grains), the multiplication of shipping contracts for fruits and vegetables to be exported fresh or packaged, frozen or tinned, and horticultural investment all determine the increased value of labour, land, water, and agricultural production. Green beans, mangetout, onions, basil, roses, milk thistle, mangos, pineapples, wheat, corn, chicken, etc. find their way to markets in major cities in Kenya, East Africa, Europe, Russia, Japan, or Arabia, thereby allowing farmers to improve their conditions. This integration has come about through the opening of the localised areas (*terroirs*) to traffic, contracts, credit, bank accounts, small scale irrigation equipment, cold storage rooms, and to better access to inputs. It is supported by the Kenyan government's proactive strategy to improve its network of agricultural technicians tasked to mercilessly enforce Western importers' prescriptive requirements regarding Maximum Residue Levels[2] and quality in order to open new markets for export. These commercial and productive reconfigurations complicate technical farm trajectories for which diversification is becoming widespread. They accentuate rural socio-economic contrasts while favouring the structuring of the countryside into production basins that reduce the Kenyan agricultural geography of agricultural belts. However, the rural socio-economic contrast is not totally eradicated due to the resilience of some localised areas (*terroirs*) that specialise in coffee production and the successful production of tea.

The time has passed when Kenya's post-colonial economy was dominated by coffee and tea: these two crops represent no more than 30% of export revenues and this decrease in overall share of production shows the extent of recent diversification and structural transformation. However, the two still play an important role in many farmers' access to cash. Despite pessimistic predictions, coffee has not disappeared, even if it is shrinking around the best-performing coffee factories that play the label card (Barjolle, Quinones-Ruiz, Bagal & Comoé 2017, 105-119), quality label, and even prestige origin labelling. Above 1,800 m, tea crops have progressed in profiting from high prices and the performance of Kenyan tea.

Thus, far from being homogeneous, Kenyan agriculture has various production speeds: large agricultural holdings with more than 20 ha (27% of the value of commercial agricultural production)—which were sometimes inherited from the large colonial estates (tea, coffee) or result from recent land investment (sugar cane, market gardening, biofuel)—coexist and compete with commercial farmers often from the cooperative sector or from contract farming; and a multitude of smallholders who combine as much as they can subsistence and cash farming in varied proportions. They often diversify in

2. See European Commission, "Maximum Residue Levels": https://ec.europa.eu/food/plant/pesticides/max_residue_levels_en [archive].

an attempt to escape the hard lot of farmers or smallholders, who often live in the arid or semi-arid borderlands or the hinterlands landlocked by the coast and devoid of the resources of commercial integration such as pluri-activity. Agriculture reflects Kenyan society: fragmented and profoundly unequal. At the same time, it is the most important sector of the economy contributing 60% of export revenue, and the most important segment of society in that it provides an often poorly paid and precarious living to the majority of Kenyans. Consequently, the economic and social future of the country rests on agriculture. In light of this, agriculture should be the focus of decision-makers and development brokers. This is also why the two most important factors of agricultural production—land and water—are at the heart of Kenya's development issues.

On average, terms of trade are becoming increasingly unfavourable for agricultural products: from the index of 100 in 2001, they fell to 49 in 2016! Only the exacerbation of contrasts and inequalities, within the agricultural sector itself, can at the same time explain the growth of agriculture's contribution to the GDP and the global deterioration of the terms of trade.

Table 2. Evolution of performance of colonial commercial crops

			2006	2011	1016
Coffee	Price (KES) for a 100 kg bag at the farm		20,000	33,000	41,000
	Area (Hectares)	Cooperatives	128,888	85,000	88,000
		Plantations	42,000	25,000	26,000
	Production (Tonnes)	Cooperatives	27,000	27,000	30,000
		Plantations	21,000	22,000	15,000
	Yields (Kg/ha)	Cooperatives		316	350
		Plantations		900	600
Tea	Price (KES) for a 100 kg bag at the farm		14,000	27,000	24,000
	Area (Hectares)	Cooperatives	95,000	125,000	140,000
		Plantations	51,000	65,000	80,000
	Production (Tonnes)	Cooperatives	191,000	218,000	265,000
		Plantations	120,000	151,000	207,000
	Yields (Kg/ha)	Cooperatives	2,225	2,037	2,084
		Plantations	2,700	2,953	2,908

Sources: KNBS *Economic Survey* 2011 and 2016.

Table 3. Change in indices of the main agricultural types of production in quantity and value (index 100 in 2001)

	2005		2009		20013		2016	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Grains	105	109	66	171	98	227	95	213
Sugar	123	95	139	132	146	167	172	169
Horticulture	179	93	197	106	223	165	**277**	151
Tea/Coffee	105	100	101	162	119	218	146	217
Meat/milk	150	128	179	147	260	261	**328**	321

Sources: KNBS *Economic Survey* 2011 and 2016.

Table 4. Exports (weight and value) of cut flowers, fruits, and vegetables

	2005	2012	2016
Flowers	81,000 t.	108,000	133,000
	23 billion	65 billion	71 billion
Fruits	18,000 t.	31,000 t.	50,000 t.
	2 billion	5 billion	7 billion
Vegetables	64,000 t.	66,000 t.	80,000 t.
	14 billion	20 billion	23 billion

Sources: KNBS *Economic Survey* 2011 and 2016.

Landscapes[3]

Following the increase of human and agricultural development, natural landscapes have practically disappeared and only really exist in protected areas (15% of Kenya's territory): or, on the decline, they are being eroded by the stubble-burning of charcoal makers in dry regions with low pastoral densities, as for example in the Nyaki desert between Mombasa and Voi, where wood charcoal is a fast, but predatory, path to profit. However, cultivated areas cover no more than 20% of the territory.

The Kikuyu, Meru, and Embu lands remain the agricultural heart of the country. The commercial orientation of this agriculture is recognised and intensification is at its height. Following the abandonment of coffee plantations, the polycultural diversification of large holdings, their opening to commercial sectors, the involvement of agricultural households in non-agricultural activities, and often polytopic multi-activity have reinforced a multitude of small commercial urban centres linked by genuine linear desakotas along the roads. On a smaller scale, these dynamics form a genuine agro-urban region centred around Nairobi (Calas, 2004): the strategies of

3. See Said, Okwi, Ndeng'e, Agatsiva & Kilele (2007).

sectoral or spatial overlapping related to Brownian movements integrate the *terroirs* into a large area harnessed to the capital city. This homogenisation impedes neither unequalisation between farmers of the same village, nor the emergence of landless farmers, nor the relative specialisation of specific productive basins in terms of physical amenities and technical solidarity.

In the West (Luhya, Luo, Teso, and Kisii lands), crop combinations are very complex and oriented towards subsistence intensification adapted to extremely high densities, to the low scale of land holdings, to the relative poverty of many farmers, and to a lesser integration if compared to the Central Province and its commercial networks. There, people strive to minimise subsistence risks and to diversify farming on smaller and smaller plots by relying on old agricultural know-how and fine-tuning farming. For example, the commonly used corn/sorghum combination allows farmers to prevent their crops from being ravaged by corn borers.

Agroforestry and *bocage* dominate the highland landscapes. Contrary to the widely accepted perception, trees are spreading, and this is especially true of faster-growing species (*grevillea* mainly, even if numerous projects expect to restore native trees).

In the lowlands, vast, parched and scrubland, attacked by the axes of charcoal producers and the buckets of diggers highly contrast with the green ribbons of irrigated lands. In between these two extremes, one finds semi-arid regions such as, for instance, in Ukambani or the Tugen region where drillings and wells allow citrus orchards and mango trees to thrive and alternate with traditional pluvial grain farming, often cultivated in terraces (Tiffen, Mortimore & Gichuki 1994).

However, this agricultural performance does not contradict the growth of manufacturing or services. In these sectors, diversification has occurred, even if it has been partially hidden on the macroeconomic scale.

As the driving force of employment (Twining-Ward, Li, Bhammar & Wright 2018) and an early diversified sector, **tourism** has also undergone diversification. The mass tourism of 1970–1980 is now combined with more distinctive kinds of tourism underpinned by a diversification of activities offered, notably Outdoor Physical Activities (Calas 2015). However, being very sensitive to political and security risks, Kenya's international image has suffered due to the Westgate Shopping Mall attack in Nairobi (2013), the attack at Garissa University College, and the Al-Shabaab attacks in the Lamu region (2014). Faced with this situation, tour operators have reoriented themselves to cater to domestic and African tourists. While not a perfect substitute for the previous tourist flows—hotel occupancy rates (6 million overnight stays with capacity for around 20 million) remain notoriously low—they allow hotels to maintain the minimum level of activity necessary

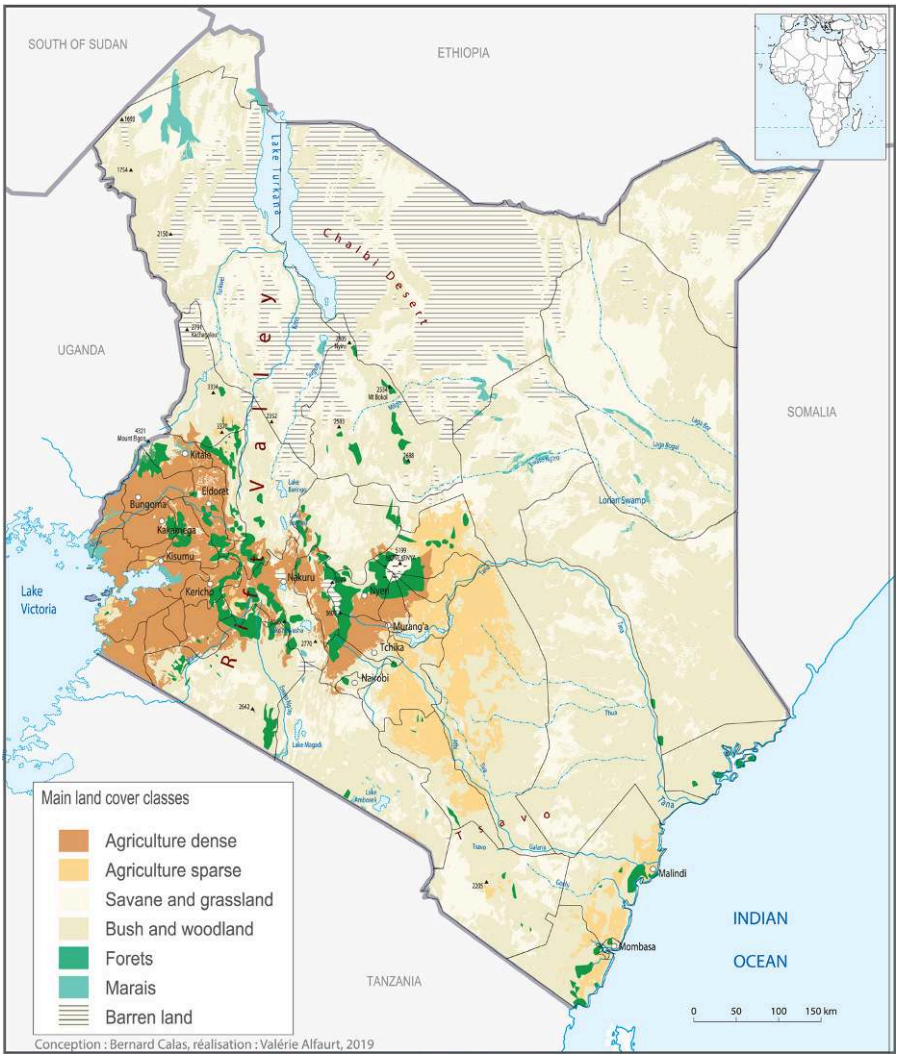

Figure 4. Land use in Kenya
Bernard Calas, Valérie Alfaurt, 2019.

to remain open all year round and maintain tourist infrastructure. However, since 2016, the international situation has slowly been improving.

In terms of the number of guests, tourism is mainly focused on the coast and its white sands, its coconut trees, its turquoise waters, its transparent lagoons, and even its nightclubs—which is typical of a tropical destination; yet, in a less expected way, the capital city is the second destination chosen by tourists. Being a national airport hub but also due to its many conferences and symposiums, Kenya's capital looms large in the country's tourist geography. National parks and animal reserves are only the third

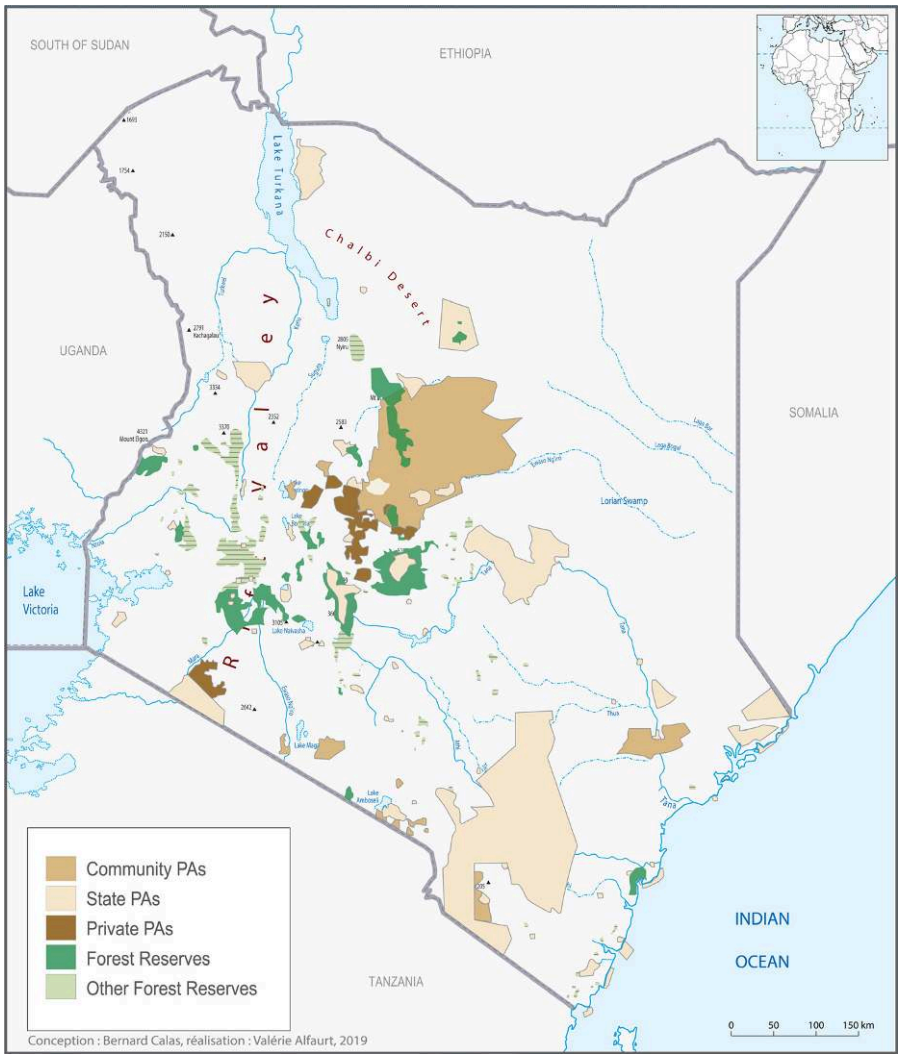

Figure 5. Protected forests and protected animal areas
Bernard Calas, Valérie Alfaurt, 2019.

most important destination. Notwithstanding, fauna and nature are the emblem of Kenya as a destination in the international market: they shape tourism and, through it, the country itself.

In the cities, the growing number of malls and supermarkets, the rise in the value of manufacturing, the financialisation of the economy, the relative openness to high-tech industries, to artistic industries, and business process outsourcing, all embody the diversification of the secondary and tertiary sectors. However, they must not—in turn—conceal the informal sector, small scale street vending, handicrafts, domestic work (Lanne 2018),

recycling, and even petty theft that provide an income to the majority of urban residents. "Coders," the "iHub" teleworking platform, the future "Silicon Savannah" (Johari 2015), French and Chinese investors amongst others, are attracted by the authorities' pro-business attitudes and by the prowess of the "start-up nation." Whilst they delight in trade forums and their employees frequent stylish bars in the city, the majority of urban residents remain concerned about poor employment opportunities, misery and the daily insecurity of "*jua kali*." Of course, factories have flourished and the road between Jomo Kenyatta International Airport and Nairobi city centre is no more than a succession of warehouses, factories, showrooms, conference centres, and business hotels that employ a significant portion of the population. But the day-to-day workers and subcontractors wander along the edge of the city's roads before dawn and again late in the evening, hoping to save money on public transport by walking. Nairobi appeared in the ranking of global competitive cities (115th out of 120, 5th in Africa after Johannesburg, Cape Town, Durban, and Cairo according to the *Economist Intelligence Unit* in 2012) but many women in Nairobi stand at the roadside selling small piles of tomatoes and onions and their second-hand clothes or plastic Chinese products. In the gaps between the industrial zones, slums like Mukuru—less iconic than Mathare or Kibera, yet all the more squalid—are entrenching themselves. Despite their spectacular intrusion into urban landscapes, the notably architectural landmarks of economic success do not change the sectoral power relations that pull more than 80% of the workers entering the urban labour market into the informal sector and precarious work sector. The rhetoric about the emergence of a Kenyan middle class is over-optimistic and a myth (Darbon & Toulabor 2014). In effect, if 10% of the population earns more than 5,000 USD per year, that means that 90% earns less. A large floating population—with incomes just more than 2 USD per day—has certainly emerged from poverty, yet without reaching middle class. Is that to say that we are dealing with illusory development? How does this make up society?

Beyond the cosmopolitanism of Nairobi and other large cities, urban landscapes display in nuanced ways an increasingly complex social stratification: sheet metal slums, tenement cities of concrete and greyish basalt blocks (Hurzschmeyer 2007), housing developments of semi-detached dwellings, groups of posh buildings, towers, and gated communities are all side by side, separated by walls and railings, by bigger and bigger avenues that receive more and more traffic, urban highways, and bypasses that do not prevent traffic jams but only mitigate the delays.

The classical dynamics of a liberal metropolis govern urban extension. The cleaning of the CBD (Morange 2015, 247-269), the emergence of alternative centralities (Westlands and Upper Hill), segregated urban sprawl, and

generalised bunkerisation, all suggest a Brazil-type metropolisation, as far as urban mega-projects are plenty (Saraswati 2014), such as the new Tatu City (built on old coffee plantations on the initiative of an investment fund) or the Two Rivers Mall that hosts a Carrefour hypermarket. The role of China in a massive 800-million-dollar real estate project bolsters this idea of Nairobi's liberal metropolisation. These urban megaprojects embody to the extreme the growing gap between the often-closed-minded visions which are occasionally realised in the form of localised enclaves, and the ordinary reality of the majority of Nairobi's inhabitants (Watson 2013, 215-231; Jaglin, Didier & Dubresson 2018).

This economic diversification goes together with a reorientation of customers and suppliers. As Europe becomes less dominant, and the countries of the sub-region and COMESA become important commercial partners, Asia, now represents half of the imports (notably petroleum products from the Gulf and manufactured goods from China and India).

Table 5. Commercial deficit and commercial balance in 2016

Exports 500 billion KES		Imports 1,400 billion KES	
Tea	120	Oil	183 (300 in 2014)
Flowers	110	Animal fats	53
Textiles	30	Plastics	60
Coffee	21	Machines	253
Titanium	11	Vehicles	85
Tobacco	14		
Medications	13	Pharmaceutical products	60
Steel	13	Steel	75

Source: KNBS *Economic Survey* 2011 and 2016.

Table 6. Direction of Trade in Kenya

	Exports	Imports
Africa	40%	10%
Europe	25%	20%
Asia	25%	66% (China 25% of total imports)
Other	10%	

Sources KNBS *Economic Survey* 2011 and 2016.

3. Third Challenge: Environmental Sustainability in a context of Pressure on the Environment

Combined with the growth of the population, these geoeconomic changes require the intensification and broadening of exploitation activities, even putting pressure on the environment in order to increase productivity. This concerns not only the surface but also the substrate, that is to say, the subsurface and the lower atmosphere. Productivity beyond environment limits necessitates drilling, catchments, levelling of the ground, the installation of pylons and antennas, the laying of cables and pipes, the construction of dams, of electricity grids, which are all signs of the increasing anthropisation of the environment. However, for the last thirty years, the paradigm of sustainability has been imposed on the world's development agenda, which means that increasing productivity should ideally be "eco-economic friendly." The question is therefore no longer to describe the environment as such but to focus on exploitation operations and the relationship between humans and their environment, as well as the tensions that these relationships stir up, considering also the regulations that target them.

Decision-makers, environmental lobbies and the civil society worry about deforestation and its effects, the reduction of wild fauna, the erosion of biodiversity, the increasing risks of, most notably, floods and erosion, and generally the accentuation of the negative externalities of Kenya's development. This is why, in the wake of the Brundtland report (World Commission on Environment and Development 1987), environmental requirements were imposed on development projects and programmes in Kenya like in the rest of the world. In the South, Socio-Environmental Impact Assessments (SEIA) became widespread, environmental clean-ups or at least their monstration were made obligatory to the point that the environmental concern is no longer limited to conservationist circles, but permeates the entire economy.

Of course, the common classification produced by the "tropico-developmentalist" ideology of the 1950s-1960s that distinguished nine agro-ecological zones by combining physical diagnostics and agricultural objectives is still relevant to understand the country. However, it must be pushed further by observing the physical potentialities and the ways these are turned into commodities, and then into resources. This trend is brought about by the increase of needs caused by the combined pressure of demographic and economic growth. The top commodities converted into resources are water, fossil fuels, renewable energy sources, biodiversity, and mineral matter. For the last 30 years, they have been—and continue to be—the central issues of Kenyan development. Today they point to its

contradictions and tensions even more significantly—or perhaps more explicitly—than before. The result is that a certain number of places with these potential resources are becoming "eco-economic" hot spots and concentrate some of Kenya's geopolitical issues.

The whole of Kenya suffers from water scarcity as its renewable water resources amount to less than 1,000 m^3 per person per year (Bates et al. 2008, 93–94). As a consequence, hydrous potentials have become important issues and hydro-political hot spots. The most important of these hot spots are the country's "water towers," that is to say, the major mountainous ranges: Mt Kenya (5,199 m), Mt Elgon (4,321 m), the Mau Forest and the Aberdares (4,000 m), and the Cherangani Hills (see also Rouillé-Kielo in this volume). These ranges where it rains more and more often than elsewhere (2,300 mm at 2,000 metres high on the southeast face of Mt Kenya) have bogs and forests that, like sponges, slowly release water, supporting the flows of springs and rivers that diverge from them. Deforestation and land clearing, therefore, impact the water balance of these mountains by diminishing retention efficiency, even though total rainfall may increase. As a consequence, the rivers originating from these mountains, their high and low water patterns, as well as lakes, have become a centre of attention and controversy, of debates and passionate polemics. Yet, the trend has returned to hydroelectric dams that also create irrigation reservoirs for downstream agricultural areas (Tharaka Dam) and the large flat areas that border them are coveted by large property developers (Leauthaud et al. 2013).

From the Sahara to the United States, deep fossil aquifer exploitation has also become common. How would Kenya escape this trend? The discovery of the Lotikipi basin aquifer in northern Turkana has thus been a windfall for the people in a region that is regularly threatened by droughts but also—but less publicised—by the disastrous effects of the construction of Ethiopian hydroelectric dams in the Omo valley.[4] Even more discretely, it certainly serves as a windfall for the oil companies that will need large volumes of water to extract oil in the depths of Lake Turkana (see more below).[5] Kenyan hydro-politics are particularly heated and conflicts around water resources are multiplying, constituting an especially pertinent part of the analysis of power relations (Rouillé, Blanchon, Calas & Temple-Boyer 2015). The conflicts about the usage of water from Lake Naivasha

4. Since 2015, hydroelectric and hydraulic initiatives in the Ethiopian Omo Valley have lowered the water level of Lake Turkana by over 1.5 metres and this will likely occur again, reducing the surface of the lake in the areas with the most fish (Human Rights Watch -14 February 2017). This could turn Lake Turkana into an African Aral Sea just as giant agricultural projects such as Give IV (the largest dam in Africa) and Give V are being built.

5. 4/5 barrels of water are needed to produce a barrel of oil.

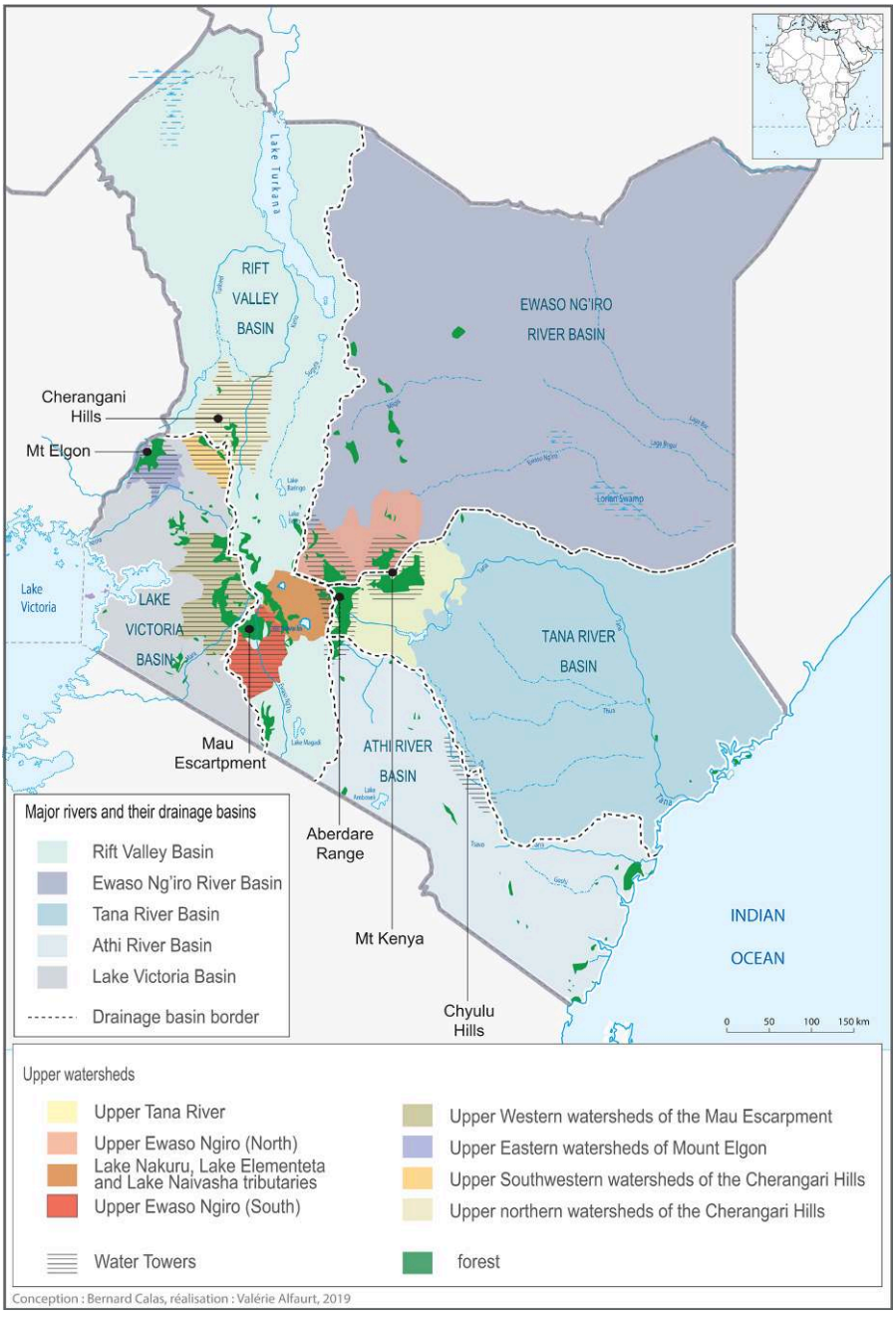

Figure 6. The physical base and its "eco-economic friendly" commodities
Bernard Calas, Valérie Alfaurt, 2019.

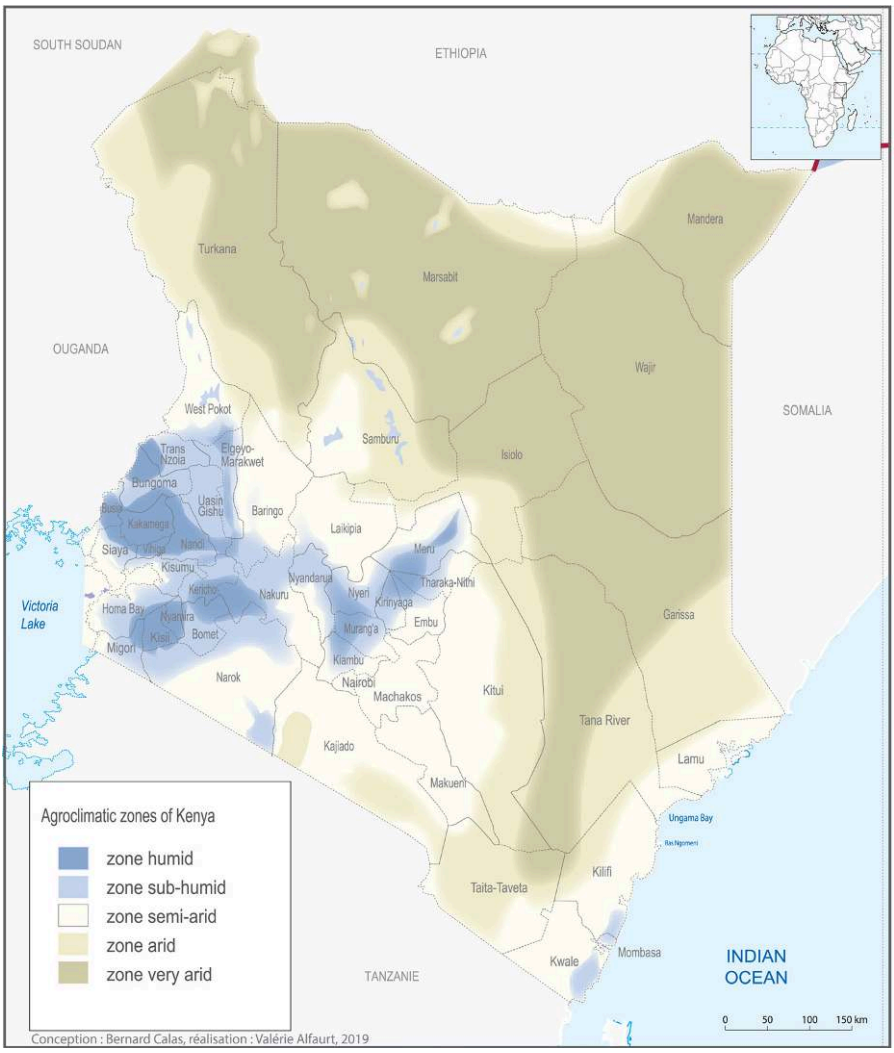

Figure 7. The agro-ecological zones
Bernard Calas, Valérie Alfaurt, 2019.

and Lake Baringo and the conflicts between residents living upstream or downstream of the Ewaso Ng'iro or Tana rivers, are textbook cases of a myriad of hydro-political conflicts.

Towards a Green Kenya? The Energy Problem and the Electricity Mix

The growth of energy needs requires an increased use of energy resources that punctuate the country's geography with extraction and exploitation sites. In effect, the growing pressure of needs combined with the diversification of technical capabilities is transforming certain aspects of

the environmental resources which a short while ago were considered to be of no interest. As with most African countries, energy is chief among the preoccupations of decision-makers such as investors. Investment experts point to the Kenyan electricity sector as a growth market, ranked 4th on the continent (Havas Horizon 2016). The objective is to increase electrical production to 15,000 megawatts in 2030. Rivers and streams coming down from the mountains, hot gases escaping the bowels of the Rift, the consistency and regularity of trade winds and sunshine, all allow Kenya to use clean electricity, which is relatively innovative on a world scale. In effect, 80% of electricity is produced thanks to renewable sources, topped by hydroelectricity, mainly from the upper and mid Tana, that provides at least 40% of the 2,200 megawatts produced, followed by geothermal energy (30% of the Kenyan electricity mix) (Berggren & Österberg 2017).

Having innovating in the Hell's Gate site for more than 30 years, Kenya is now one of the world leaders in geothermal energy behind Iceland. Following the example underway in the Akira Valley near Naivasha, 14 sites are spread along the Rift Valley that must increase geothermic production to 10,000 MW.

Another path being explored is wind energy. In effect, the country has found itself with a major site for producing this kind of energy: the eastern bank of Lake Turkana. There, strong winds gust through the topographic threshold between the Kenyan highlands and the Ethiopian highlands before further accelerating thanks to the adiabatic effect of the vast heated body of water of Lake Turkana. Regular strong winds blow for years, constituting an amasing potential energy source (3,000 megawatts) in the process of being developed as a wind farm with a capacity of 310 megawatts as already been built in Loiyangalani.

The last path to increase renewable electricity production is solar. Of all energy sources, solar is the most versatile as it can combine two different approaches and technical options: large and small solar farms, and individual solar panels. When combined, these two types of production can help even out investments in energy grids by responding to the industrial and urban demand and connecting regions and even off-grid households. The state has shown that it understands the importance of this energy source when it required that all buildings that use more than 100 litres of water per day be equipped with solar water heaters. Private individuals, even in the depths of the jungle, can follow Premier League matches thanks to ingenious devices made from batteries and solar panels.

However, electricity is not synonymous with energetics and it must not be concluded from its rather virtuous energy mix that Kenya is in the process of becoming a green economy. Although it banned the export of wood charcoal in 1975, 70% of households still cook over wood fires using, on average,

between 1.4 and 2.4 m3 of wood charcoal per year which has contributed to accelerated stubble-burning and deforestation. Furthermore, they still largely light fires with paraffin wax which further increases greenhouse gas emissions. This nuance reveals the extreme discrepancy between, on the one hand, a modern society and economy connected, to some small extent, to globalisation and, on the other, the marginal majority of people who still make up Kenyan society and economy. Apart from such inequity, the current energetic model still has several weaknesses, notably because industrial growth and the increasing number of vehicles have caused oil imports to increase by 6% between 2004 and 2014. Moreover, fluctuating rainfall affects the level of dams and directly weakens the electricity supply of cities and industries. The resultant recurring power outages slow investments and at any rate cause over-expenditure for entrepreneurs.

In the days of the "Anthropocene" and the "6th extinction," and as tourism brings in more than 20% of the country's foreign currency reserves and contributes around 12% of its GDP, the protection of biodiversity has become a common refrain, a requirement, and a major issue. This explains why there are plenty of associations, lobbies, and interest groups that, in the name of that imperative, are working towards the protection of an emblematic animal, an exceptional place or even a specific habitat. To this day, the preferred spatial arrangement to achieve this goal remains the protected area, whether it is public (50% of Kenyan protected areas), private (25%), or communal (25%). The animal archipelago was formed in three phases: the colonial phase (1945–1963) and the post-colonial phase (1970s) that both created Kenya's public patrimony (90% of wildlife tourists and 75% of revenues), then a third phase, starting in the 1980s and especially in the 2000s, during which large landowners and pastoral communities transformed their lands into conservancies. This recent dynamic is as important in terms of biodiversity as it is in terms of territorial organisation since it has allowed for the extension of protected areas as only 35% of fauna is protected within the limits of public areas (National Parks and National Reserves).

Moreover, most of the new protected areas are located in the arid and semi-arid regions where 20% of the population (and incidentally 80% of the livestock) reside, often in poverty. Conservation, if well managed, can constitute an economic alternative for these people. In these regions, we note therefore an almost paradoxical change in the growing besiegement of protected areas, but also their extension. Emblematic of this change: the Laikipia Plateau (Evans & Adams 2016), the surroundings of the Samburu-Shaba, Amboseli, the Masai Mara and the northern mountains between Maralal and Marsabit. Vast areas combine pastoral activities and wildlife tourism, but the monotony of the savannah conceals the signs of land property.

The viability of fauna in protected areas rests on three conditions: rejuvenation of the fauna gene pools in these increasingly beleaguered areas, incentive plans for conservation targeting neighbouring populations, and the establishment of collective governance that subsumes state and institutional land fragmentation. In short, the main issue at stake is integration of wildlife isolates into a territorial archipelagic system. The emergence of a wild fauna market to transport animals from one reserve to another, the efforts to turn the large mammals migratory corridors into sanctuaries, and the scientific and political networking of the conservancies all aim to try to resolve the contradiction between the necessity of cross-fertilisation to ensure the renewal of the gene pools of these areas, and the growing isolation of these areas that reduces the scope of local biodiversity. They also aim to act as a political lobby capable of influencing *ad hoc* local collectives, county-level institutions and the state, whose preoccupation with development sometimes contradicts the necessity for environmental conservation.

A Rentier Future?

Since the mega-cycle of raw materials of the 2000s, all over the world, multinational oil and mining corporations—often with governmental blessing—have increased the number of explorations and investments in extractive industries, leading to the exploitation of more deposits. For now, the raw materials sector remains minor in Kenya. Even if titanium from Kwale and gold from the minor deposits in Transmara are added to the salt that has long been extracted from Magadi (mostly for the Japanese optics industry), Kenya is nothing like a rentier state. However, things could change, radically, due to the 1992 discovery of oil reserves in Lokichar in South Turkana (Augé, Nkayi & Médard 2013). The recoverable oil resources are valued at 750 million barrels and their exploitation is considered viable at 55 USD per barrel. In January 2018, after several years of diplomatic dithering, the exploitation of the Turkana reserves was relaunched. The geopolitical crises in Venezuela and Iran have increased the price per barrel back over 50 USD, Tullow has announced profits, and in April 2018, Total joined the project. This operation has accelerated the pre-exploration phase of Turkana's oil field. Furthermore, "Total has confirmed its commitment to make the Lokichar-Lamu pipeline the only method of delivery of crude oil in Kenya from Lokichar fields" (*Le Point* 2018). The Turkana operation should, therefore, begin production at the start of 2022, after the completion of the 700 km pipeline linking each production unit to the coast. Kenya could then become, for better or worse, a rentier state!

The whole of these operations produces a planting of variable sized but territorialised enclaves that, together, accentuate one of the major

geographic characteristics of the country: its fragmentation. Yet, this is coupled with another contradictory dynamic: a dynamic of integration brought on by the need for the connection of these extractionary enclaves to meet growing globalisation.

4. Fourth Challenge: Multiscale Integrations, Construction of the State, and National Solidarity

It is not sufficient to produce, exploit, and extract resources. Distribution, allocation, and commercialisation are also necessary for techno-commercial networks. Yet, these are Kenya's weak points—which is typical of developing countries.

Despite appreciated progress with regards to the economic environment, investors continue to point out the recurrence of outages and load shedding as a weakness (World Bank 2019). Progress in production is not yet sufficient. As such, the wind farm already in place in Lonyangalani serves no purpose for the moment since the electrical lines that carry current to consumers have not been installed! Once again, we see a white elephant.

But beyond these setbacks, logistical integration is progressing. The road network is expanding and strengthening thanks to the East African Community along with multilateral and bilateral donors, Chinese among others. The widespread asphalting of roads, the inroad of motorway and peripheral bypasses, the construction of fly-overs and other massive roundabouts improve traffic flow, reduce congestion, and promote national integration.

Further, new technologies that Kenyans have quickly adopted (67% regularly use the internet and 89% have a mobile phone plan) are intensifying the links between areas, promoting polytopism and contributing to integration. At the global scale, the country has innovated by experimenting, since 2007, through the M-Pesa system, with electronic transactions to the point that today, half of the GDP moves through this channel and two-thirds of the population would use money kiosks to deposit and transfer money. However, even as 60% of the population has an account, at the same time, 80% does not have access to mortgage lending.

Since the 1990s, the acceleration of globalisation has reinforced integrative dynamics and a complex interdependence between the states of the world. On the East African scale, they are reinforcing Kenya's integration with its subregion. For the last 30 years already, the country's economy has relied upon transit activities, focusing on the pivotal role of the Mombasa-Nairobi-Busia/Malaba corridor for the subregional geography (220 million people). This corridor has been strengthened: The railway has been rebuilt, the Mombasa-Kisumu pipeline is being modernised, and the Mombasa-

Nairobi high-voltage power line has been built. The road is regularly resurfaced (Porhel & Léon 2013) and the links between the coastline and the continental hinterlands have been considerably improved. Today, this corridor still serves as the backbone of the country and in 2012, 91% of GDP was produced within 100 km of it. The volume of goods that passes through Mombasa comes close to 30 million tonnes (10 million tonnes in 2003), which makes it the second largest port in sub-Saharan Africa and more than 700 lorries cross the Ugandan border at Malaba each day.

Globalisation has also tightened links between Kenya and its Ugandan and Tanzanian neighbours. For 20 years, the institution-building of the East African Community has laid the foundation for a "New East Africa" (Fouéré & Maupeu 2015), which materialised in the construction of the Namanga-Taveta border checkpoints, the largest connection with the Tanzanian and Ugandan road networks. On the regional scale, the flow of goods and peopled has been reinforced while certain tariff and customs barriers have been eliminated. Since 2005, the Machakos Protocol for peace agreements has permitted the extension of Kenyan commercial and banking networks towards Juba and South Sudan, networks that are dormant today due to the civil war, but are real, nonetheless (Calas, Racaud & Torretti 2016). Likewise, in the north, the interconnections of electric grids and asphalt-coated road networks are integrating Kenya with the sub-region's other dominant economy: Ethiopia. Finally, since 1990, the Somali crisis and its surges have intensified Somali investment in Nairobi, the city thus becoming the "Global Somali Hub." The boom of Eastleigh—Nairobi's Little Mogadishu—can be explained by the convergence of three factors on different scales: the strength of transnational Somali networks, the momentum of the Kenyan economy and housing market, and the emergence of Asia as the world's factory (Carrier 2016). Furthermore, the Somali crisis has allowed the Kenyan economy to continue to profit from humanitarian operations.

This integration is increasing towards a very dynamic and populous East African space (220 million people), the opening of the southern borders of countries of the Horn and the rise in traffic have imposed the modernisation of new infrastructure on the coast. In Mombasa, the port's capacity has been increased thanks to the construction of a new container terminal of 450,000 TEU. In the north, the digging of a new deep-water port is creating a new development corridor, from Lamu to the north-western borders and beyond, to South Sudan and Ethiopia: the famous LAPSSET (Coloma 2013; Fouéré & Maupeu 2015; see also Maupeu in this volume). In this context, Isiolo, 400 km further west, is thought of as a junction between this corridor and the Nairobi-Addis road (Pan African Highway). Currently planned are 6,500 acres for a new seaside resort, a new dam on the Ewas

Ngiro, a slaughterhouse with a capacity of 400 heads of cattle per day, and an international airport.

This infrastructure and these projects demonstrate the importance of major works and especially the large corridors of opening-up, the growth of "eco-economic" approaches harnessed to development rhetoric, and the legitimisation and funding of the elites. In 2017, President Uhuru Kenyatta and his Vice-President William Ruto campaigned on the finalisation of large infrastructure projects, such as the Nairobi-Mombasa train line. Cooperation with China was cast as a major success of Kenyatta's presidency, underlining the link between land use policy, territorialisation of the state, and electoral politics.

Integration in globalisation is noticeable in the balance of payments in a rather ambivalent way. The remittances of emigrants represent the second-largest source of foreign currency growing from 139 million USD in 1990 to 1,700 million USD, 3% of the GDP.[6] The growth of FDI to 400 million USD from 57 million USD in 1990 underlines the increasing attractiveness of the country for globalised investors. However, aid remains at a high level at 2,200 million USD (compared to 1,181 in 1990) and demonstrates how much the country still depends on aid. Likewise, as debt servicing has diminished (falling from 36% to 10% of exports), the public debt has exploded, now representing more than half of GDP and Chinese lenders now more than 3/4 of the creditors.

Beyond this economic, financial, logistical, and multiscale territorial integration, the question is now how the benefits of growth are being distributed. In effect, it is through redistributive mechanisms, notably taxation, land use planning, and the sharing of powers between different administrative layers, compounded by decentralisation in 2013, that draw on contours of national solidarity as well as the effectiveness of nation-building thanks to the windfall of economic growth. This question is obviously an excuse for debates and intense bargaining, on different scales, between different actors.

One of these debates between foreign corporations and the government revolves around the corporate tax rate. The rate envisioned by the government, between 30 and 37.5% of capital transactions, is evidently thought to be too high and prohibitive by oil companies and generally by private corporations in all other sectors. In this way, plans to tax horticulturalists have provoked an exodus towards Ethiopia, fiscally the lowest bidder. Another debated point is the nature of taxation. Should

6. As opposed to emigrants in other African countries such as Morocco, Kenyan emigrants do not represent a significant part of the populations (500,000 people are less than 2% of the population) but their remittances are an important part of the nation's accounts.

capital transactions or transactions in the financial market be taxed? The government favours the latter (5% instead of 30/37%) since corporations have an incentive to go public, which would have the collateral effect of energising Nairobi's stock exchange.

Furthermore, in the context of the stabilisation of rules surrounding the 2010 Constitution and the decentralisation of 2013, a second level of discussion pits the central government, the county governments, and productive municipalities against each other. It seems that for the moment, tax sharing is favourable enough to the intermediate level of the counties. Does this mean it will be good for citizens? Won't it be better for local notables and potentates?

More or less, these debates on the allocation of the benefits of growth also find themselves in the conservationist sphere. How do populations engage in animal conservation and how are they rewarded for their agreed efforts? Around Masai Mara, conservancies are managed on the basis of contracts between traditional landowners and tourism investors. The latter pay between 37 and 50 USD per hectare, per year, for 10 to 15 years. Even if this system solidifies the land monopolisation established by Masai elites when communal lands are subdivided, it improves local population's perception of fauna and no doubt of the sustainability of its protection and development as a tourist site. However, they now wonder about the identity of the representatives of these famous "local communities" and the borders of these "communities" themselves.

These tensions about sharing the benefits of growth and about political representation form the context in which a localised civil society is emerging. This civil society use these questions as opportunities to engage with debates that point to national and even international integration. Local elites and intermediary bodies are taking full advantage of their abilities to mobilise their zealots or external support to pressure companies and the central government in view of gaining access to the benefits of predation. Thus, in 2013, Turkana notables incited young people to pillage the Tullow oil exploration sites. Still, in 2013, it was in the forest of Arabuko-Sokoke in Kilifi county that local authorities successfully limited oil explorations by invoking their Unesco biosphere reserve. The following year, in 2014, the notables of the Kerio Valley organised protests to demand that the government hand over the communal property titles for the explored lands as a precondition for seismic exploration. This is only a common, localised process through which civil society, gathered around its notables and NGOs, is claiming a less unequal share of the fruits of exploitation.

Conclusion

Malthus or Boserup, who will Kenya prove right? This paper illustrates few certainties as the reality of the situation offers us with as many reasons to be optimistic about the future as to make us worry. How do we reconcile Nairobi and the aridity of the North-East; how do we keep in mind Mukuru next to Muthaiga; how do we put together so disparate pieces of the Kenyan puzzle as the hyper-populated *terroirs* of Vihiga and the Laikipia ranches? How can we consider the decentralisation of the 47 counties and the simultaneous reinforcement of presidentialism? Kenya seems to be caught between large investments and small ventures, between devolution and recentralisation, between the myth of a middle class, even one of new millionaires[7] and despite a slow decline, the persistent spectre of extreme poverty (see Thibon in this volume). How do we critically report growing territorialisation but do justice to an ever-grander aspiration for more effective spatialisation (Jaglin 2007)? Indeed, if national integration is progressing well, territorial inequalities have not disappeared, and the reverse even seems to be true.

The Coast seems to be the archetype of a more difficult region. The poverty rate there is 13% higher than the national average and only 38% of its inhabitants hold an ownership title compared to 62% for the rest of the Kenyan population. Politico-religious turmoil, economic frustrations, trafficking and mafia investments are the fertile ground for constant tensions ready to ignite at the slightest incident (see Willis and Mwakimoko in this volume). The northern coast and its hinterland (Garissa, Tana, and Lamu) have been especially impacted by incursions by Al Shabaab (Mpeketoni, 60 dead near Lamu—15 to 17 June 2014); interethnic insecurity is controlled through curfew. The Coast does not have a monopoly on tensions and interethnic violence may soon resume elsewhere, notably during elections when leaders wield identities for political ends, such as in Isiolo and Marsabit counties during the 2017 election campaign or in Laikipia, Uasin Gishu, or Elgeyo Marakwet when concurrent appetites for land collide, or shepherds and farmers confront each other. This violence especially affects the arid and semi-arid outskirts of the country that are unsafe, have been marginalised for a long time, and are subject to *shifta* and other cattle raids. Devolution, large projects, mining and oil prospecting, foreign investments, land allocations generally monopolised by highland residents or urban elites, and identity vexations stir resentment and can

7. With a value of 500 million USD in 2016, Kenya is the second largest luxury market in Africa behind only South Africa (2.3 billion USD) (*The Wealth Report* 2017, Knight Frank Johannesburg) and has the 4th highest number of millionaires in Africa after South Africa, Egypt, and Nigeria and will attain 3rd place in 2026 with about 17,000 millionaires.

threaten the stability of these regions and can even impact on the stability of the whole country.

In contrast, in 2007, the World Economic Forum ranked Kenya 10th out of 29 African countries using the criteria of global competitiveness. It showed that Kenya has the characteristics of an economy in transition between an economy dependent on commodity prices and global business cycles, and an economy based on innovation thanks to a qualified labour force, an innovative financial sector, and a green energy mix. Kenya is in the process of harvesting the fruits of its former investments in higher education.

Twenty years ago, I concluded with the idea that the Kenyan development model was tired. Since then, it has shown a certain degree of longevity that demonstrates its resilience. Should we conclude today that this model is a deceptive development model or, alternatively, an emerging development model?

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